CLAIMS:

1. A magnetic resonance method for locating interventional devices, in particular in vivo, in which the interventional device bears a marking which in the magnetic resonance acquisition influences the measured signals or generates its own measured signals, characterized in that the measured signals are processed by means of a one-dimensional signal processing method.

2. A method as claimed in claim 1, characterized in that the one-dimensional signal processing method is an iterative method.

3. A method as claimed in claim 2, characterized in that the iterative method is based on the maximum entropy method.

4. A method as claimed in claim 2 or 3, characterized in that, for artefacts occurring in the measured signals, model functions are formed, adapted and subtracted from the measured signals as the iterative method is carried out.

5. A method as claimed in claim 4, characterized in that the model functions are adapted to the recorded measured signals by way of a scaling parameter.

6. A method as claimed in claim 5, characterized in that the model functions are adapted anew to the recorded measured signals after each iteration step in the iterative method.

7. A method as claimed in claim 5, characterized in that the model functions are adapted to the recorded measured signals once, before the iterative method is carried out.

8. A method as claimed in any of claims 4 to 7, characterized in that the measured signals recorded when the marking on the interventional device is inactive are used as model function.

9. A method as claimed in any of claims 4 to 8, characterized in that rectangular or Gaussian functions are used as model functions.

10. A method as claimed in any of claims 4 to 9, characterized in that the mean value of the difference between measured signal and model function is selected as start value for the iteration.

11. A method as claimed in any of claims 2 to 9, characterized in that the mean value of the measured signal is selected as start value for the iteration.

12. A method as claimed in any of claims 1 to 11, characterized in that high and/or low frequency signal fractions are eliminated in order to suppress noise and/or artefacts in the recorded measured signals.

13. A method as claimed in claim 1, characterized in that a filter with a finite or infinite impulse response is used as one-dimensional signal processing method.

14. A method as claimed in claim 13, characterized in that the filter is a Wiener filter or a bandpass filter.

15. A method as claimed in any of claims 1 to 14, characterized in that during the evaluation of a number of measured signals being used to locate the interventional device, after processing of the measured signals by means of the one-dimensional signal processing method a check as to coincidence of the positions of the interventional device determined by way of the processed measured signals is carried out.

16. A method as claimed in any of claims 1 to 15, characterized in that a number of measured signals being used to locate the interventional device are processed jointly in the one-dimensional signal processing method.

17. A method as claimed in any of claims 1 to 16, characterized in that the measured signals are recorded in parallel by a number of receiving coils.

18. A method as claimed in any of claims 1 to 17, characterized in that the one-dimensional signal processing method calculates the correlation of one or more measured signals.

19. An apparatus for locating interventional devices with the aid of magnetic resonance acquisition, in which the interventional device bears a marking which in the magnetic resonance acquisition influences the measured signals or generates its own measured signals, characterized in that the apparatus has program control for carrying out a method as claimed in any of claims 1 to 18.

20. A computer program for processing measured signals during the location of interventional devices with the aid of magnetic resonance acquisition, in which the interventional device bears a marking which in the magnetic resonance acquisition influences the measured signals or generates its own measured signals, characterized in that a method as claimed in any of claims 1 to 18 can be carried out by means of the computer program.